

AMENDMENTS TO THE CLAIMS:

Claim listing:

1. (Currently Amended) A method of optimizing a shipment to at least a first receiver of a plurality of products maintained by the first receiver in inventory at a receiver location, the shipment being of at least one product from a first source at a first location and a second source at a second location different from the first location to the first receiver through a distribution point located at a distribution location remote from the receiver location, the first location and the second location, plurality of shippers to at least one receiver, the plurality of first and second shippers sources being different business entities, the method comprising the steps of:

determining the products required to be maintained in the inventory in response to data received from the first receiver; and

(a) determining a maximum load of at least one a transport vehicle from the plurality of shippers; and

(b) calculating an amount of the products for shipment from the first source and the second source and a mode of transportation of the products from the first and second sources to the distribution point and from the distribution point to the first receiver that reduces logistics costs and that maintains the inventory within the amount of products required to be maintained according to an algorithm employing one or more metrics and the data, optimizing the maximum load of at least one the transport vehicle.

2. (Currently Amended) The method of claim 1, wherein the one or more metrics comprise the level of the inventory ~~the determining step including the step of determining at least one of a maximum mass, maximum length, maximum height, maximum width, maximum volume, and pallet footprint of the at least one transport vehicle.~~

3. (Currently Amended) The method of claim 1, wherein the one or more metrics comprise the time of shipment of the products ~~determining step further includes the step of establishing at least one optimization metric.~~

4. (Currently Amended) The method of claim 1 3, wherein the one or more metrics comprise ~~metric establishing step further includes the step of establishing at least one of the following metrics: a capacity utilization per vehicle mile, total transportation cost metric; transportation cost as percentage of product value shipped metric; shipping revenue metric; total logistics cost metric; and shipping revenue less freight cost metric.~~

5. (Currently Amended) The method of claim 1 4, wherein the transportation mode uses vehicles having capacities and wherein the one or more metrics comprise bin-packing characteristics of the vehicles, including one or more of the amount of pallet layers, pallets, pallet/foot prints and cases of products within the capacities of the vehicles ~~optimization step further includes the step of exercising discretionary control over the products to be shipped.~~

6. (Currently Amended) The method of claim 1 5, wherein the products comprise a first product and a second product and wherein the exercising step of

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calculating comprises ~~further includes~~ the step of prioritizing the products the first product relative to the second product to be shipped.

7. (Currently Amended) The method of claim 1 6, wherein the ~~optimization~~ step of calculating ~~further includes~~ comprises the step of temporally optimizing the product shipment from the first and second locations ~~temporally among at least one other shipment~~.

8. (Currently Amended) The method of claim 1 6, wherein the ~~maximum load~~ optimization step of calculating an optimal load ~~further includes~~ comprises the step of providing a trade allowance to the at least ~~one~~ first receiver.

9. (Previously Presented) The method of claim 8, wherein the trade allowance is a rebate.

10. (Canceled)

11. (Currently Amended) The method of claim 1 6, wherein the distribution point comprises ~~method further includes the step of manipulating the shipment at a cross-dock~~.

12. (Currently Amended) The method of claim 1 11, and further comprising the step of labeling the products ~~wherein the step of manipulating the shipment at a cross-dock includes the step of classifying the stock with destination indicia~~.

13. (Currently Amended) The method of claim 12, wherein the ~~classifying step~~ ~~further includes~~ labeling comprises the step of applying at least one of an a label, SKU code, pallet tag, and UPC code.

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14. (Currently Amended) The method of claim 11, wherein the method further ~~includes~~ comprises the step of ensuring that products entering the cross-dock have a predefined destination beyond the cross-dock.

15. (Currently Amended) The method of claim 1 6, wherein the method further ~~includes~~ comprises utilizing a vehicle tracking system.

16-42. (Canceled)

43. (New) The method of claim 1, wherein the transportation mode uses vehicles having a maximum load and wherein the step of calculating comprises the step of calculating a mix of additional products to be shipped from the second location when the maximum load is not exceeded by the products calculated to be shipped from the first location.

44. (New) The method of claim 1, and further comprising the step of scheduling the shipment of the products from the first and second locations to arrive at a cross-dock before the shipping of the products from the first and second locations.

45. (New) The method of claim 1, wherein the step of calculating comprises the step of optimizing the one or more metrics.

46. (New) The method of claim 1, wherein the transportation mode uses vehicles having capacities and wherein the one or more metrics comprise the amount of the vehicle capacities filled with the products.

47. (New) The method of claim 1 wherein first receiver is a distributor of the products.

48. (New) The method of claim 1, wherein the first and second sources each comprise shippers.

49. (New) The method of claim 1, wherein the steps are carried out by a third party independent of the sources and the receiver.

50. (New) The method of claim 1, wherein the one or more metrics comprise a maximum feasible order size and wherein the step of calculating comprises calculating the maximum feasible order size that maintains the inventory within the amount of products required to be maintained.

51. (New) The method of claim 1 wherein the steps are implemented by computer hardware, computer software or a combination of computer hardware and computer software.

52. (New) A method of facilitating shipment of merchandise to a first receiver maintaining a first inventory of merchandise at a first receiver location and to a second receiver maintaining a second inventory of merchandise at a second receiver location, the shipment of merchandise being from a first source located at a first source location and from a second source located at a second source location, said method comprising:

determining the limits of the merchandise required to be maintained for the first inventory according to one or more first metrics in response to first data received from the first receiver;

determining the limits of the flow of merchandise required to be maintained for the second inventory according to one or more second metrics in response to second data received from the second receiver; and

calculating an amount of merchandise for shipment from the first and second sources and a mode of transportation of the merchandise from the first and second sources to the first and second receivers that reduces logistics costs and that results in

shipment of merchandise within the limits of merchandise required to be maintained for the first inventory and within the limits of merchandise required to be maintained for the second inventory according to an algorithm employing at least the one or more first metrics, the one or more second metrics, the first data and the second data.

53. (New) The method of claim 52 wherein the one or more first metrics comprise a level of the first inventory and wherein the one or more second metrics comprise a level of the second inventory.

54. (New) The method of claim 52 wherein the one or more first metrics comprise prescheduling of the delivery of the merchandise to the first receiver and wherein the one or more second metrics comprise prescheduling of the delivery of the merchandise to the second receiver.

55. (New) The method of claim 52 wherein the merchandise comprises first merchandise having a first priority and second merchandise having a second priority less than the first priority and wherein the one or more first and second metrics comprise at least one priority value.

56. (New) The method of claim 55 wherein the first merchandise and the second merchandise comprise the same type of merchandise.

57. (New) The method of claim 55 wherein the first merchandise and the second merchandise comprise different types of merchandise.

58. (New) The method of claim 52 wherein the transportation mode uses vehicles having capacities and wherein the one or more first and second metrics comprise the amount of the vehicle capacities filled with the merchandise.

59. (New) The method of claim 52 and further comprising the step of labeling the products with destination indicia.

60. (New) The method of claim 59 wherein the labeling comprises the step of applying at least one of an SKU code, pallet tag, and UPC code.

61. (New) The method of claim 52 wherein the one or more first and second metrics comprise a quantity of the merchandise and a time of transportation of the merchandise.

62. (New) The method of claim 52 wherein the merchandise comprise at least first products and second products and wherein the one or more first and second metrics comprise a mix of the first products and second products.

63. (New) The method of claim 52 wherein the one or more first and second metrics comprise selection between the first source and the second source.

64. (New) The method of claim 52 wherein said determining the limits of the merchandise required to be maintained for the first inventory comprises deriving from the first data the level of the first inventory and identifying the quantities of the merchandise shippable to maintain the first inventory as required.

65. (New) The method of claim 64 wherein said determining the limits of the merchandise required to be maintained for the second inventory comprises deriving from the second data the level of the second inventory and identifying the quantities of the merchandise shippable to maintain the second inventory as required.

66. (New) The method of claim 52 wherein the merchandise is available at a distribution point displaced from the first and second receiver locations and displaced from

the first and second source locations, wherein the transportation mode uses vehicles having capacities, and wherein said calculating comprises:

calculating a quantity of the merchandise for shipment by at least one of the vehicles from the distribution point to the first receiver location; and

calculating a quantity of the merchandise for shipment by at least one of the vehicles from the distribution point to the second receiver location.

67. (New) The method of claim 66 wherein said calculating further comprises:

calculating a quantity of the merchandise for shipment by at least one of the vehicles from the first source to the distribution point; and

calculating a quantity of the merchandise for shipment by at least one of the vehicles from the second source to the distribution point.

68. (New) The method of claim 66 wherein the distribution point comprises a cross-dock.

69. (New) The method of claim 66 wherein the distribution point comprises a warehouse.

70. (New) The method of claim 52 wherein the first receiver is independent from the second receiver.

71. (New) The method of claim 70 wherein the first receiver and the second receiver comprise different legal entities.

72. (New) The method of claim 52 wherein the first source is independent from the second source.

73. (New) The method of claim 72 wherein the first source and the second source comprise different legal entities.

74. (New) The method of claim 52 wherein the first and second receivers are distributors of the merchandise.

75. (New) The method of claim 52 wherein said calculating comprises calculating shipment of the merchandise from the first and second sources jointly.

76. (New) The method of claim 52, wherein the steps are carried out by a third party independent of the sources and the receivers.

77. (New) The method of claim 52, wherein the one or more first and second metrics comprise a maximum feasible order size and wherein the step of calculating comprises calculating the maximum feasible order size that maintains the inventory within the amount of products required to be maintained.

78. (New) The method of claim 52 wherein the steps are implemented by computer hardware, computer software or a combination of computer hardware and computer software.

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